

PROJECTED ECONOMIC IMPACTS OF A DURABLE WHOLESALE TRADE FIRM ON LICKING COUNTY, OHIO*

How much could Licking County afford to invest in industrial site improvements to attract a durable wholesale trade firm? Would the area benefit or lose if a tax abatement is given to the firm? The attached results show the impacts on Lima Township, Licking County, and the Southwest Licking Local School District of a typical wholesale firm for durable goods.

It is estimated that 12 persons would be employed. Most of the community data came from reports issued by the state auditor and has not been verified with local officials. Data on the firm are derived from various reports issued by the U. S. Department of Commerce and the Ohio Bureau of Employment.

Based upon results of previous research, it was assumed that 40 percent of the new plant employees would be residents of Lima Township, 30 percent would commute from the rest of Licking County, 10 percent would move into the county, and 20 percent would commute from outside the county.

Changes in Local Incomes

Employees in Lima Township are estimated to earn \$34,339 more than they would otherwise in the first year if the firm is established. Employees in the rest of Licking County should earn \$23,915 more in the first year. Depending on where they live, these employees are estimated to spend from 10 to 50 percent of their new income in Lima Township. The incomes of other area merchants and their employees would increase by \$5,415 in the first year.

Public Finance Impacts of New Jobs

The tax base in the county would expand enough to provide the township, the county, and the school district with greater increases in revenues than in expenditures. However, these net gains were quite small for all three units. In the first year the net gains were \$114, \$405, and \$606 for the township, county, and school district.

For the township and county the net gains increase over the ten year period due to projected increases in the real wages at this firm. The school district impacts have an uneven pattern as a result of the Ohio education finance system which combines an equal yield formula for state aid, a guarantee of no reduction in state aid from one year to the next, and property values which change only once every three years.

Local Investments in Site Improvements

The bottom two lines of Table 1 show the breakeven investment for attracting this firm. It's labeled "Present Value Over 10 Years at 5.0" and it shows the value today of these surpluses over the entire period. If the firm operates in the location for ten years with 12 employees, the township could invest up to \$1,509. That is, the township could invest up to \$1,509 without raising local tax rates. The county could invest another \$4,429.

*Prepared by George Morse, Resource Economist, and John David Gerard, Technical Assistant, Economic Research, Department of Agricultural Economics and Rural Sociology, Ohio Agricultural Research and Development Center and the Ohio State University, December 1979, ESO 651.

The county and township could divide these investments based on their expected net benefits or approximately a 75 to 25 percent division.

The results for the school demonstrate an important consideration: the stability of the firm must be considered. Dun and Bradstreet data show that a large percentage of firms fail each year. If this firm successfully operates here for 10 years, the present value of the net gains to the school district is \$5,443. If it fails during this period, the results are reversed, with a net loss of \$29,328. This negative result assumes that expenditure declines do not result immediately after a plant fails and that they only decline by 75 percent of the original increase. While all local units of government are affected by this, schools are affected more severely because of the larger amounts of funds involved.

Tax Abatement

If a fifteen-year tax abatement is given to this firm, using the Community Reinvestment Program, the net gains to the township in year 1 would be 28 percent less than without the abatement. In this program the abatement applies only to taxes on improvements to real property and not to tangible personal property taxes, income taxes, or sales taxes.

The net gains to the county would drop by only 6 percent. This is because the township's additional local revenue comes entirely from property taxes. However, over half of Licking County's additional revenues would come from the one-half percent permissive sales tax.

Use Alternative Estimates and Check the Data

These estimates are derived from the Ohio Economic Growth Impact Model. The data used in this analysis are attached. Because the model has been computerized, different situations can be easily examined.

These results represent the first of a three-phase program. If local decisions are being made about the level of public investment for a firm, specific data on that firm must be studied.

A careful review of the other data used in the analysis is also desirable. For example, users frequently are uncertain about where new employees will live. How many already live in the township, county, and school district? How many will commute in from other areas? How many will move in? The base analysis shown here assumes 40 percent already lived in the township with 30 percent coming from the rest of the county. As Table 3 shows, the net gain in year one to the township ranges from \$93 to \$135 if the percentage in the township is 20 and 60 percent, respectively. This type of analysis cannot remove all the uncertainty and risk involved. It can help to focus attention on the key local issues in local growth policies.

For more information on this service, contact George Morse, Resource Economist, GROW Community Development Project, P. O. Box 32, Jackson, Ohio 45640 (614/286-2177).

PUBLIC FINANCE IMPACTS OF NEW JOBS

FIRM CODE: 5000
COMMUNITY: LIMA TWP

INDUSTRY CODE: DUR WHLS TRD DATA CODE: 000301
SCHOOL DISTRICT: SW LICKING LOCAL COUNTY: LICKING

ANNUAL NET BENEFITS TO:

	CITY	COUNTY	SCHOOL DISTRICT
YEAR 1	114.	405.	506.
YEAR 2	154.	482.	539.
YEAR 3	230.	602.	1185.
YEAR 4	216.	599.	1057.
YEAR 5	202.	593.	417.
YEAR 6	226.	631.	721.
YEAR 7	212.	619.	585.
YEAR 8	199.	609.	459.
YEAR 9	223.	646.	773.
YEAR 10	209.	635.	636.
PRESENT VALUE OVER 10 YEARS AT 5.0% INTEREST	1509.	4429.	5443.
PRESENT VALUE ADJUSTED FOR PLANT FAILURE	726.	2465.	-29328.

Table 2

Detailed Estimates for Year 1

BENEFITS, COSTS AND NET GAINS FROM NEW JOBS

IN COMMUNITY OF LIMA TWP
IN A DUR WHLS TRD FIRM
EMPLOYING 12 ADDITIONAL WORKERS

PRIVATE SECTOR BENEFITS	YEAR 1
NEW INCOME, EMPLOYEES IN CITY	34339.
NEW INCOME, EMPLOYEES IN COUNTY	23915.
NEW INCOME, SERVICE SECTOR	5415.
CITY GOVERNMENT	
ADDITIONAL REVENUES	
PROPERTY TAXES, NEW PLANT	33.
PROPERTY TAXES, NEW HOMES	56.
PROPERTY TAXES, ADDITIONAL TANGIBLE	189.
INCOME TAX	0.
STATE AID	9.
MISC TAXES, NEW RESIDENTS	0.
TOTAL	210.
ADDITIONAL EXPENDITURES	
POLICE	0.
FIRE	11.
WATER	0.
SEWER	0.
STREETS	85.
OTHER	0.
CAPITAL EXPENSES	0.
TOTAL	96.
NET REVENUES	114.
COUNTY GOVERNMENT	
ADDITIONAL REVENUES	
PROPERTY TAXES, NEW PLANT	39.
PROPERTY TAXES, NEW HOMES	73.
PROPERTY TAXES, ADDITIONAL TANGIBLE	85.
SALES TAX	226.
STATE AID	1.
MISC TAXES, NEW RESIDENTS	15.
TOTAL	430.
ADDITIONAL EXPENDITURES	
CAPITAL EXPENSES	0.
SERVICES, NEW RESIDENTS	25.
TOTAL	25.
NET REVENUES	405.
SCHOOL DISTRICT	
ADDITIONAL REVENUES	
PROPERTY TAXES, NEW PLANT	166.
PROPERTY TAXES, NEW HOMES	408.
PROPERTY TAXES, ADDITIONAL TANGIBLE	526.
STATE AID	1435.
MISC REVENUES	252.
TOTAL	2788.
ADDITIONAL EXPENDITURES	
OPERATING EXPENSES, NEW STUDENTS	2182.
CAPITAL EXPENSES	0.
TOTAL	2182.
NET REVENUES	606.

Alternative Estimates of the Public
Finance Impacts of the Durable
Wholesale Trade Firm on Licking County, Ohio

	<u>Alternative Assumptions</u>	<u>Lima Township</u>	<u>Licking County</u>	<u>Southwest Licking School District</u>
1.	<u>Base Analysis^a</u>			
	Year 1 impacts	\$ 114	\$ 405	\$ 606
	Present value over 10 years at 5%	\$1,509	\$4,429	\$5,443
2.	<u>Fewer Township Workers^b</u>			
	Year 1 impacts	\$ 93	\$ 390	\$ 606
	Present value over 10 years at 5%	\$1,075	\$4,264	\$5,415
3.	<u>More Township Workers^c</u>			
	Year 1 impacts	\$ 135	\$ 420	\$ 605
	Present Value over 10 years at 5%	\$1,943	\$4,595	\$5,471

- (a) Workers from Township = 40%, 30% from rest of county
 (b) Workers from Township = 20%, 50% from rest of county
 (c) Workers from Township = 60%, 10% from rest of county

DATA USED IN ANALYSIS

000301

SECTION ONE: FIRM AND EMPLOYMENT DATA

1 INDUSTRIAL CLASSIFICATION

- A. TYPE OF BUSINESS
- B. SIC CODE

DUR WHLS TRD
5000

2 LOCATION OF NEW FIRM

- A. VILLAGE OR CITY
- B. SCHOOL DISTRICT
- C. COUNTY

LIMA TWP
SW LICKING LOCAL
LICKING

3 NEW JOBS CREATED

12

4 RESIDENTIAL LOCATION OF WORKERS
(PERCENT OF TOTAL)

- A. MUNICIPAL RESIDENTS
- B. REST OF COUNTY RESIDENTS
- C. IN-MIGRANTS TO THE CITY
- D. IN-MIGRANTS TO THE COUNTY
- E. COMMUTERS FROM OUTSIDE COUNTY

0.40
0.30
0.05
0.05
0.20

5 AVERAGE ANNUAL WAGES

- A. FOR LOCAL EMPLOYEES
- B. FOR IN-MIGRANTS
- C. ANNUAL RATE OF CHANGE

12775.
14691.
0.090

6 NEW PLANT'S MARKET VALUE

- A. BUILDINGS AND OTHER REAL PROPERTY
- B. TANGIBLE PERSONAL PROPERTY

23721.
54552.

7 PERCENTAGE OF WORKERS' INCOMES SPENT IN
THE MUNICIPALITY AND COUNTY

- A. BY MUNICIPAL RESIDENTS IN CITY
- B. BY MUNICIPAL RESIDENTS IN COUNTY
- C. BY REST OF COUNTY RESIDENTS IN CITY
- D. BY REST OF COUNTY RESIDENTS IN COUNTY
- E. BY COMMUTERS IN CITY
- F. BY COMMUTERS IN COUNTY

0.400
0.500
0.300
0.400
0.100
0.250

8 FAMILY SIZE PER EMPLOYEE

3.500

9 INCOME MULTIPLIER

1.200

10 RATIO OF HOME VALUES TO INCOME

2.000

SECTION TWO: TAX DATA

1 PROPERTY TAX RATES AND REDUCTION FACTORS

A. COUNTY INSIDE MILLAGE	2.200
B. COUNTY OUTSIDE MILLAGE	1.800
C. COUNTY TAX REDUCTION FACTOR	0.258246
D. SCHOOL INSIDE MILLAGE	4.900
E. SCHOOL OUTSIDE MILLAGE	19.800
F. SCHOOL TAX REDUCTION FACTOR	0.252354
G. CITY INSIDE MILLAGE	2.700
H. CITY OUTSIDE MILLAGE	2.400
I. CITY TAX REDUCTION FACTOR	0.234033

2 YEAR OF LAST APPRAISAL OR UPDATE 1978

3 EXPECTED ANNUAL RATE OF CHANGE IN PROPERTY VALUES 0.080

4 SCHOOL DISTRICT TAX BASE - TAXABLE VALUES

A. REAL PROPERTY	57258110.
B. TANGIBLE PERSONAL PROPERTY	3619250.
C. TANGIBLE PERSONAL PUBLIC UTILITY PROPERTY	9589827.
D. YEAR TO WHICH VALUATIONS APPLY	1980

SECTION THREE: COUNTY DATA

1 COUNTY PERMISSIVE SALES TAX RATE 0.005

2 CHANGES IN STATE AND FEDERAL AID 1.01

3 MISCELLANEOUS COUNTY REVENUE PER CAPITA 7.05

4 COUNTY OPERATING EXPENSES PER CAPITA

A. CURRENT OPERATING EXPENSES	11.71
B. EXPECTED RATE OF CHANGE	0.075

5 TOTAL ANNUAL CAPITAL COSTS

YEAR 1	0.0
YEAR 2	0.0
YEAR 3	0.0
YEAR 4	0.0
YEAR 5	0.0
YEAR 6	0.0
YEAR 7	0.0
YEAR 8	0.0
YEAR 9	0.0
YEAR10	0.0
YEAR11	0.0
YEAR12	0.0
YEAR13	0.0
YEAR14	0.0
YEAR15	0.0
YEAR16	0.0
YEAR17	0.0
YEAR18	0.0
YEAR19	0.0
YEAR20	0.0

SECTION FOUR: SCHOOL DISTRICT DATA

1 ENROLLMENT

A. CURRENT AVERAGE DAILY ENROLLMENT	3098
B. ANNUAL RATE OF CHANGE IN ENROLLMENT	0.0
C. INCREASE IN ENROLLMENT DUE TO NEW PLANT	2

2 TOTAL STATE BASIC AID IN YEAR BEFORE STUDY	1841475.
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3 ANNUAL RATE OF CHANGE IN STATE SUPPORT	0.070
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4 TOTAL CURRENT TRANSPORTATION AID	9968.
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5 MISCELLANEOUS REVENUE PER PUPIL	126.00
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6 SCHOOL OPERATING EXPENDITURES PER PUPIL

A. CURRENT	1091.00
B. ANNUAL RATE OF CHANGE	0.080

7 ADDITIONAL CAPITAL COSTS

YEAR 1	0.0
YEAR 2	0.0
YEAR 3	0.0
YEAR 4	0.0
YEAR 5	0.0
YEAR 6	0.0
YEAR 7	0.0
YEAR 8	0.0
YEAR 9	0.0
YEAR10	0.0
YEAR11	0.0
YEAR12	0.0
YEAR13	0.0
YEAR14	0.0
YEAR15	0.0
YEAR16	0.0
YEAR17	0.0
YEAR18	0.0
YEAR19	0.0
YEAR20	0.0

SECTION FIVE: MUNICIPAL DATA

1 MUNICIPAL POPULATION

A. CURRENT	4199
B. ANNUAL RATE OF GROWTH	0.0

2 MUNICIPAL INCOME TAX RATE	0.0
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3 YEARS OF TAX ABATEMENT	0
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4 CHANGES IN STATE AND FEDERAL AID	8.00
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5 MISCELLANEOUS REVENUE PER CAPITA	0.0
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6 CURRENT ANNUAL OPERATION COST PER PERSON OF MUNICIPAL SERVICES

A. POLICE	0.0
B. FIRE	2.72
C. WATER	0.0
D. SEWER	0.0
E. STREETS	21.35
F. OTHER	0.0

7 ADDITIONAL ANNUAL OPERATIONAL COSTS FOR MUNICIPAL SERVICES

A. POLICE	0.0
B. FIRE	11.00
C. WATER	0.0
D. SEWER	0.0
E. STREETS	85.00
F. OTHER	0.0

8 CAPITAL INVESTMENTS BY MUNICIPALITY

YEAR 1	0.0
YEAR 2	0.0
YEAR 3	0.0
YEAR 4	0.0
YEAR 5	0.0
YEAR 6	0.0
YEAR 7	0.0
YEAR 8	0.0
YEAR 9	0.0
YEAR10	0.0
YEAR11	0.0
YEAR12	0.0
YEAR13	0.0
YEAR14	0.0
YEAR15	0.0
YEAR16	0.0
YEAR17	0.0
YEAR18	0.0
YEAR19	0.0
YEAR20	0.0

SECTION SIX: OTHER DATA

1	LENGTH OF ANALYSIS	10
2	DISCOUNT RATE	0.050
3	RATE OF INFLATION	0.070
4	RATIO OF VALUE ADDED TO SALES SERVICE SECTOR	0.200
5	PROPORTION OF NEW HOUSING OUTSIDE COMMUNITY REINVESTMENT AREA	
	A. IN THE CITY	0.900
	B. IN THE COUNTY	0.950
6	INCOME LEAKAGE FACTOR	
	A. IN THE CITY	0.30
	B. IN THE COUNTY	0.35
7	RATE OF DEPRECIATION	0.04
8	CUMULATIVE PROBABILITY OF PLANT FAILURE	
	YEAR 1	0.014
	YEAR 2	0.097
	YEAR 3	0.225
	YEAR 4	0.353
	YEAR 5	0.481
	YEAR 6	0.543
	YEAR 7	0.605
	YEAR 8	0.667
	YEAR 9	0.699
	YEAR10	0.731